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ABSTRACT

The Students Upgrading through Computer and Career Education Systems Services (Project SUCCESS) program in New York City was evaluated under Title VII of the Elementary and Secondary Education Act. Project SUCCESS targeted three high schools with a recent influx of immigrant students. The project's design included instruction in English as a Second Language (ESL), native Language arts (NLA) in Chinese and Spanish, and bilingual instruction in content area subjects. The design also incorporated career orientation services, academic advising, and college consultation for target students, as well as summer enrichment programing. In 1991-92, the project enrolled 438 limited English proficient high school students. Project SUCCESS was fully implemented and met its objectives for Chinese NLA and career development, as well as for Spanish NLA, parental involvement, and staff awareness of student needs. Objectives for ESL, staff development, attitude change, and content area subjects were not fully met. Dropout prevention and attendance objectives were partially met. Recommendations are made for the following year to meet all program objectives. Appendix A describes data collection and analysis, and Appendix B describes instructional materials. (SLD)

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OREA Report

Students Upgrading Through Computer and Career Education Systems Services
(Project SUCCESS)
Transitional Bilingual Education Grant T003A00174
1991-92

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Students Upgrading Through Computer and Career
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(Project SUCCESS)
Transitional Bilingual Education Grant T003A00174
1991-92

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This report has been prepared by the Bilingual, Multicultural, and Early Childhood Evaluation Unit of the Office of Research, Evaluation, and Assessment.

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FOREWORD

The body of this report is preceded by an Extract which presents an overview of salient points of the project: funding cycle; enrollment figures; background of students served; admission criteria; and programming features, strengths, and limitations, including the outcome of all objectives. The extract also presents the conclusions drawn by the Office of Research, Evaluation, and Assessment (OREA) about the program and its recommendations for program improvement.

The extract is followed by the body of the report, titled Program Assessment. This includes such information as staffing, program implementation, and outcome and implementation objectives. Instructional objectives are presented first, followed by noninstructional objectives. The report then addresses those aspects of programming mandated by Title VII regulations that do not have specifically stated objectives. This may be information on attendance and dropout rate, grade retention, mainstreaming, referrals out of the program to meet special needs of the students, and withdrawals. A case history concludes the report.

Data for this profile were collected and analyzed using a variety of procedures, which are described in Appendix A following the text.

Office of Research, Evaluation, and Assessment
New York City Public Schools

E.S.E.A. Title VII Evaluation Profile

Students Upgrading Through Computer and Career Education Systems Services (Project SUCCESS)

Transitional Bilingual Education Grant T003A00174-91
1991-92

EXTRACT

PROJECT DIRECTOR: Mr. Tim Law

FUNDING CYCLE: Year 2 of 3

SITES

High School	Borough	Enrollment*	
		(fall)	*(spring)*
Murry Bergtraum	Manhattan	N/A	86
Edward R. Murrow	Brooklyn	174	155
John Dewey	Brooklyn	123	126

*The project enrolled 438 students (63 more than in the previous year), serving 297 in the fall and 367 in the spring. Male students numbered 109, female 111; gender was not stated for 218.

STUDENT BACKGROUND

Native Language	Number of Students	Countries of Origin	Number of Students
Chinese	308	China	238
Cantonese 271		Russia	71
Mandarin 37		Hong Kong	45
Russian	70	Haiti	8
Spanish	27	Panama	7
Haitian	5	Burma	5
Hebrew	4	Greece	5
French	3	United States	5
Other	8	Vietnam	5
Unreported	13	Other	33
		Unreported	16

Median Years of Education in Native Country: 7.0; in the United States: 3.0

Percentage of Students Eligible for Free Lunch Program: 48.8

ADMISSION CRITERIA

The project admitted students who scored at or below the 40th percentile on the Language Assessment Battery (LAB). Other factors taken into account were home language, high school applications, remediation eligibility status, evaluation of foreign transcripts, performance on teacher-made tests for native language proficiency, performance on New York City Regents Competency Tests (R.C.T.s), and results of a guidance placement interview. Parental permission was required.

PROGRAMMING

Design Features

Project SUCCESS targeted three high schools with a recent influx of immigrant students. The project's design included instruction in English as a Second Language (E.S.L.), Native Language Arts (N.L.A.) in Chinese and Spanish, and bilingual instruction in content area subjects. The design also incorporated career orientation services, academic advisement, and college/university consultation for target students. The project proposed to increase parents' awareness of career opportunities open to their children. The design also incorporated plans for summer enrichment programming.

Capacity building. It is expected that tax-levy funds will be used as of September 1995 to fund a bilingual career specialist, bilingual teaching materials, and extracurricular activities.

Strengths and Limitations

Staff helped newly-arrived LEP students make a smooth transition into the New York City school system. The project provided career orientation services, academic advisement, and college consultation to program students. However, it did not attempt to increase parents' awareness of career opportunities open to their children.

CONCLUSIONS AND RECOMMENDATIONS

Project SUCCESS was fully implemented. As in the previous year, it met its objective for Chinese N.L.A., its career development objectives for meeting with the career specialist and for holding a career conference, and its objective for field trips. It also met three objectives which had not been evaluated the previous year for lack of data: Spanish N.L.A., parental involvement, and staff awareness of pupil needs. The project failed to meet its objectives for E.S.L., staff development, attitude toward school and heritage, and content area subjects, all of which it had met in the previous year. However, the project came close to meeting its content area objective, failing only at John Dewey High School in the fall for mathematics and in the spring for science. As in the previous year, the project partially met its attendance objective, meeting the objective at one high school, coming close to meeting it at a second, and failing to provide the data for the third site. It met its dropout objective at one high school (having failed to meet it at any site in the previous year). The dropout rate for project students was lower than mainstream students at all three sites. The project did not offer information on summer programming.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- Explore E.S.L. techniques which have proven to be successful, and develop them in the classroom and in staff workshops.
- Provide after-school individualized instruction and increase peer tutoring at John Dewey High School to assist students in mathematics and science.
- Increase efforts to impress upon students the importance of remaining in school and attending regularly.
- Hold discussion groups with the intent of increasing students' positive attitudes about their heritage and schooling.

PROGRAM ASSESSMENT

STAFFING

Title VII Staff (Total 4)

Title	Degree	Language Competencies	Title VII Funding
Project Director	P.D. (Professional Diploma)	Chinese	Full time
Bilingual Career Specialist	M.A.	Chinese	Full time
Resource Specialist	M.A.	Chinese	Full time
Resource Teacher	B.A.	Chinese	Full time

Other Staff Working with Project Students (Total 42)

Title		Degree		Language Competencies and Teaching/ Communicative Proficiencies (TP/CP)*	
Teacher	37	Ph.D.	2	Spanish	TP 10, CP 1
Paraprofessional	5	M.A./M.S.	31	Chinese	TP 7, CP 4
		B.A./B.S.	8	French	TP 1
		A.A.	1	Italian	TP 1

Project SUCCESS did not provide complete information on certifications or language competencies.

IMPLEMENTATION AND OUTCOMES (Objectives prefaced by •)

English as a Second Language (E.S.L.)

E.S.L. CLASSES

High School	Level	Periods Weekly	Students Enrolled
Edward R. Murrow	Beginning	5	17
	Intermediate	5	68
	Advanced	5	43
	Transitional	5	42
Murry Bergtraum	Beginning	15	23
	Intermediate	10	39
	Advanced	5	59
	Transitional	5	9
John Dewey	Beginning	15	13
	Intermediate	10	32
	Advanced	10	27
	Transitional	5	23

Teachers employed a participative, interactive style of learning (i.e. story telling, role-playing, and games). See Appendix B for a list of instructional materials used.

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*Teaching Proficiency (TP): Competent to teach in this language.
Communicative Proficiency (CP): Conversational capability only.

- Seventy percent of the target students will demonstrate an appropriate increase in English proficiency.

Evaluation Instrument: Language Assessment Battery (LAB)*

Pretest: May 1991; posttest: May 1992.

Number of students for whom pre- and posttest data were reported: 312

Percent of students with pretest/posttest gains: 61.2

Mean gain: 5.3 N.C.E.s (s.d.=10.4)

Mean gain is statistically significant ($t=9.06$, $p<.05$).

Project did not meet E.S.L. objective. Less than the proposed 70 percent of the students showed a gain in English language proficiency, although the mean gain was substantial and statistically significant. The project director felt that newly-arrived immigrants needed more time to learn and practice their new language. He stated that more E.S.L. materials would be purchased, peer-tutoring and afterschool programs would be established, a small-group E.S.L. tutoring program would be initiated, and conferences with E.S.L. teachers regarding students' progress would be held weekly.

Native Language Arts (N.L.A.)

Students lacking native language literacy skills: 50 percent.

Paraprofessionals were available to explain terminology when necessary. Cooperative learning was a motivating technique for encouraging participation and maintaining interest.

N.L.A. CLASSES

High School	Level	Periods Per Week	Students Enrolled	
			Spanish	Chinese
Murry Bergtraum	Beginning	5	--	30
	Intermediate	5	--	30
	Advanced	5	--	45
	Advanced Placement	5	--	
Edward R. Murrow	Beginning	5	4	5
	Intermediate	5	39	35
	Advanced	5	28	20
	Advanced Placement	5	24	15
John Dewey	Beginning	5	--	22
	Intermediate	5	--	32
	Advanced	5	--	31

*OREA used a gap reduction design to evaluate the effect of supplementary instruction on project students' performance on the LAB. Since all LEP students in New York City are entitled to such instruction, no valid comparison group exists among these students, and OREA used instead the group on which the LAB was normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

- Seventy-five percent of the Chinese-dominant participants will demonstrate a significant increase in Chinese.

- Seventy-five percent of the Spanish dominant participants will demonstrate a significant increase in Spanish language achievement.

Evaluation Indicator: final course grades.

PASSING GRADES IN NATIVE LANGUAGE ARTS

Language	Fall		Spring	
	Enrollment	Percent Passing	Enrollment	Percent Passing
Chinese	203	92.6	207	93.7
Spanish	12	91.7	10	100.0

*$p<.05$

Project met N.L.A. objectives for both Chinese and Spanish.

Content Area Subjects

Instruction in content area subjects was taught with a bilingual methodology. Class notes and homework assignments were developed in Chinese and Spanish, stressing difficult vocabulary. Visual aids such as videotapes, maps, and pictures further clarified difficult subject matter. Instructors encouraged students to work together and used peer tutors to encourage this.

See Appendix B for a list of instructional materials.

- At least 70 percent of all targeted students will score at or above the 65 percent passing criterion in the subject areas of social studies, mathematics, and science.

Evaluation Indicator: final course grades.

PASSING GRADES IN CONTENT AREA COURSES

High School	Subject	Fall		Spring	
		Enrollment	Percent Passing	Enrollment	Percent Passing
Murry Bergtraum	Mathematics	46	91.3	62	93.5
	Science	19	100.0	25	100.0
	Social Studies	66	97.0	76	100.0
Edward R. Murrow	Mathematics	165	84.8	159	88.7
	Science	162	82.1	158	85.4
	Social Studies	165	84.2	161	87.0
John Dewey	Mathematics	87	67.8	109	69.7
	Science	84	72.6	97	68.0
	Social Studies	88	76.1	115	75.7

Project partially met content area subject objective. The objective was met at all sites in all subject areas except at John Dewey High School in the fall for mathematics and in the spring for science. The project director stated that workshops in teaching methods would be held for the bilingual mathematics and science teachers of project students.

Career Development

- All graduating students will meet with the bilingual career specialist for advisement at least three times during the school year.

Evaluation Indicator: program records.

Students met with the bilingual career specialist for career and college advisement on at least three occasions. Students with special needs were seen more frequently.

Project met career development objective for advisement.

- The program will organize at least one conference for students in which the representatives of business and industry will present information on career options and skill requirements.

Evaluation Indicator: program records.

An Annual Career Day was held at Long Island University's Brooklyn Campus. Guest speakers included lawyers, doctors, accountants, and architects.

Project met career development objective for holding a career conference.

Field Trips

- The program will organize at least three field trips for the target students at the three sites, to historical museums, United Nations, White House, etc., to increase their familiarity with American culture and citizenship.

Evaluation Indicator: program records.

Project students visited the United Nations, Metropolitan Museum of Art, and the Pan-Asian Theater's production of "Fairy Bones."

Project met field trip objective.

Attendance

- As a result of participating in the program, students' attendance will be significantly higher than mainstream students'.

Evaluation Indicator: program records.

ATTENDANCE RATES

High School	Project Students	Mainstream Students	Difference
Murry Bergtraum	N/A	85.4	---
Edward R. Murrow	91.2	89.7	1.5
John Dewey	94.3	89.6	4.7*

*$p < .05$

Project met attendance objective at John Dewey High School only. The project student attendance rate was higher than the mainstream rate at Edward R. Murrow High School, but not significantly so. The project did not supply attendance data for project students at Murry Bergtraum High School.

Dropout

- Program students will have a significantly lower dropout rate than similar non-program students.

Evaluation Indicator: program records.

DROPOUT RATES

High School	Project Students	Mainstream Students	Difference
Murry Bergtraum	0.0	3.5	3.5 *
Edward R. Murrow	0.5	1.6	1.1
John Dewey	0.7	1.8	1.1

*$p<.05$

Project met dropout prevention objective at Murry Bergtraum High School only. While the dropout rate for project students was lower than mainstream students' at the other sites, it was not significantly so. However, mainstream dropout rates at these two sites were very low, and it might have been difficult to achieve significantly lower rates.

Attitude Toward Heritage

- Seventy-five percent of all target students will demonstrate an improvement in attitude toward their heritage.

Evaluation Instrument: OREA-developed cultural heritage attitude scale (5-point Likert scale).

OREA received data on 357 students, 56.9 percent of whom indicated an improvement in attitude toward their heritage.

Project did not meet objective for improvement in attitude toward heritage. The project director stated that community members would hold workshops and meetings for students to increase appreciation of various heritages more fully.

Attitude Toward School

- Seventy-five percent of all target students will demonstrate an improvement in attitude toward school.

Evaluation Instrument: OREA-developed scale of attitude toward school (5-point Likert scale).

OREA received data for 357 students, 67.5 percent of whom indicated an improvement in attitude toward school.

Project did not meet objective for improved attitude toward school. The project director stated his intention to arrange for professionals to speak at school assemblies in the hope of inspiring students to improve their attitude toward school.

Grade Retention

Twenty-one project students (4.8 percent) were retained in grade. No students had been reported as retained in the previous year. No objective was proposed in this area.

Enrollment in Post-secondary Institutions

The project reported that 56 participating students enrolled in college after graduation. No objective was proposed.

Students With Special Academic Needs

Referral to special education. No students were referred to special education.

Remedial programs. No students were referred to remedial programs.

Gifted and talented programs. No students were referred to gifted and talented programs.

No objective was proposed in any of these areas, and no referrals were made in the previous year.

Mainstreaming

Nine students (2.1 percent of participants) were mainstreamed. The previous year, one student (0.3 percent) had been mainstreamed. No objective was proposed.

Academic performance of former project students in mainstream. The project did not submit data on the academic performance of the student mainstreamed the previous year.

Staff Development

- Ninety percent of the program staff members will enroll in at least one university course each semester.

Evaluation Indicator: Program records

The project director reported that all Title VII-funded staff enrolled in at least one university course during the year under review, but most took a course for one semester only.

Project did not meet staff development objective.

Staff Awareness

- Eighty percent of the staff in the program will demonstrate an increase in awareness of pupil needs and problems.

Evaluation Instrument: OREA-developed scale of increase in awareness of pupil needs and problems (5-point Likert scale).

OREA received data for four staff members, all of whom indicated that they had increased their awareness of pupil needs and problems.

Project met objective for increased staff awareness of pupil needs and problems.

Curriculum Development

Project staff developed curricula in sequential mathematics, conceptual science, economics, and global history. (An objective for curriculum development was proposed for the third project year only.)

Parental Involvement

Parent meetings were scheduled as necessary to discuss student progress and parent concerns.

- The proportion of program students' parents who participate in Open School Day/Evening will be equal to or greater than the proportion of mainstream students' parents who participate in this activity.

Evaluation Indicator: attendance records.

PERCENT OF PARENTAL ATTENDANCE

High School	Program Parents	Mainstream Parents
Murry Bergtraum	98	88
John Dewey	96	90
Edward R. Murrow	95	89

Project met objective for parental involvement.

CASE HISTORY

M. came to the United States in 1988 and entered the 9th grade at John Dewey High School the following year. A LEP student, he was placed in the bilingual program. He often visited the bilingual resource center for counseling and tutoring, and his parents worked with the coordinator of the bilingual resource center. He became a member of the school mathematics team and went on to participate in nationwide mathematics contests. His LAB scores went from the 28th to the 60th percentile.

APPENDIX A

DATA COLLECTION AND ANALYSIS

COLLECTION

OREA evaluation consultants visit sites and interview key personnel. The project director gathers data and, with the consultant, completes forms (as shown below) as necessary.

Student Data Form

This one-page form is filled out by staff for each participating and mainstreamed student. OREA gathers data from this form on backgrounds, demographics, academic outcomes, attendance, referrals, and exit from the program.

Project Director's Questionnaire

The Project Director's Questionnaire includes questions on staff qualifications, program implementation, periods of instruction, and instructional materials and techniques.

Project Director's Interview

The interview gathers information on program and student or staff characteristics not supplied by the Project Director's Questionnaire. The interview also allows project staff to offer qualitative data or amplify responses to the questionnaire.

Citywide Test Scores

OREA retrieves scores centrally from the Language Assessment Battery (LAB) and other citywide tests. For evaluation purposes, these test scores are reported in Normal Curve Equivalents (N.C.E.s). N.C.E.s are normalized standard scores with a mean of 50 and a standard deviation (s.d.) of 21.06. They constitute an equal-interval scale in which the distance is the same between any two adjacent scores. A gain of 5 N.C.E.s is the same whether it is at the lower or the higher end of the scale. N.C.E.s can be used in arithmetic computations to indicate group progress. (Percentile scales, although more familiar to many, are unsuitable for such computations since they are not equal-interval.)

Likert-Type Surveys

Likert-type surveys, in which respondents mark their opinions on a scale from one to five, are used in a variety of ways. They examine student attitudes (i.e., toward school and career, native language use, and native and mainstream cultures). They also assess staff and parent attitude and reactions to workshops and other activities.

ANALYSIS

Gap Reduction Evaluation Design

OREA uses a gap reduction design for measuring changes in standardized tests. Since no appropriate non-project comparison group is available in New York City, where all students of limited English proficiency (LEP) are entitled to receive supplementary services, OREA compares the progress of participating students with that of the group on which the test was normed. It is assumed that the norm group would show a zero gain in the absence of instruction, and gains made by project students could be attributed to project services. Scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.06. (See "Citywide Test Scores" above.)

To test whether pre/posttest gains are greater than could be expected by chance alone, OREA uses a *t*-test. To test whether a difference between two proportions (e.g., program and mainstream attendance rates) is

greater than could be expected by chance, OREA uses a *z*-test and reports the differences between the two proportions. The level of significance is set at .05 for all tests.

Techniques For Minimizing Error

The evaluation procedures minimize error by providing for proper administration of evaluation instruments through a combination of testing at 12-month intervals, appropriate analysis procedures and reporting.

Instruments of measurement include the LAB (see above), the Degrees of Reading Power (D.R.P.) test, the Metropolitan Achievement Test--Mathematics (MAT-Math), El Examen de Lectura en Español (ELE), Likert-type scales (see above), and project-developed tests. Except for Likert scales and project-developed tests, these instruments are scored on a citywide basis at the Scan Center of the New York City Public Schools.

APPENDIX B

INSTRUCTIONAL MATERIALS

Science

Biology and Human Process	Charles Tanzer	Prentice Hall
RCT Science Review for NYC		Prentice Hall

Mathematics

Integrated Mathematics	Dressler & Keenan	Amsco
Jas Mathematics		Addison Wesly

Social Studies

Eastern Hemisphere: Europe, Asia, Africa, Oceana	Schreiber, Steper, Patrich	Foresman, Scott
El mundo y su gente	Cooper, Kenneth	Silver Burdett Co.

Chinese

Chinese Text		Chinese Culture Press
Chinese Text		Government of Hong Kong

E.S.L.

Achieving Competence in Reading & Writing	H.L. Christ	Amsco
Impact-50 Short Stories	F. Safier	Harcourt Brace Jovanovich
Outsiders-American Short Stories	J.S. Mullen	Prentice Hall Regents

Typing

Series 7 Typing		Gregg-McGraw Hill
Century 21 Typing		Southwestern